

CHEM 3A: Introductory General Chemistry - Hybrid
Spring 2019 - 59134
Lab: Tues 2:00 – 4:50
Lecture content will be delivered online

Instructor: Bill Blanken

Contact e-mail: bill.blanken@reedleycollege.edu using “Chem3A hybrid” in subject line, this helps keep the spam filter from rejecting the email if it comes from Yahoo etc., office phone is ext. 3341

Office hours: Office hours will be held on Tuesday from 10:00 to 2:00 in PHY 81 and a virtual office hour on Friday from 8:00-9:00. The virtual office hour is conducted via email.

Course Objectives: Chemistry 3A is an elementary survey course in chemistry including hands on lab work. It is designed to give the student a chemistry background for a wide variety of careers including agriculture, forestry, nutrition, nursing, physical therapy, teaching and other biological and health related fields. It can also serve as a prep course for chem. 1A.

Math 3A, CHEM 10 or high school chemistry and eligibility for ENGL 125 are strongly recommended. Many students attempt to take CHEM3A without any prior chemistry. It is possible, but it takes a lot of **hard work**. Start seeing a tutor right from the beginning if you're having problems. Students will need to be familiar with college level algebra before taking this course as there is a lot of math and critical thinking involved. I also cannot stress enough the importance of working outside of class in study groups. This can be very helpful to some students. At the minimum exchange email addresses and phone numbers with other class members to help keep up with what's going on in class throughout the semester.

Study Recommendations: Chemistry 3A is a fully transferable college level chemistry course and is treated as such. As a subject chemistry is very challenging and the general accepted rule of thumb for study time outside of class is 2 – 3 hours of study for every hour of lecture time and there 3 hours of online lecture material per week. So for chem 3A you need to expect to study 6 – 9 hours per week. Some students will require more and some less, this is dependent on the individual.

Text and Required Materials and Equipment:

- **Textbook:** Nivaldo J. Tro: “Introductory Chemistry”, 6th edition. However in order to save money the 3rd through the 5th editions are acceptable as well. These can be rented or purchased through Amazon or other retailers. I also strongly recommend that the student purchase or rent the Student solutions manual that goes with the edition of textbook you are using. This will help with homework.
- **Safety glasses and lab coats are also required for lab,** these can be purchased at the bookstore, online or from other students.
- A basic scientific calculator with “exp” (or “EE”) and “log” keys (\$10 or less at Walmart)

- **Access code to Masteringchemistry.com** , this can be purchased bundled with the textbook or purchased stand-alone directly from www.masteringchemistry.com

Lab work and experiment explanation: the labs for each lab period will be available on the chem. 3A Canvas site for download. These are to be printed out and read in advance of coming to lab. After carefully reading the lab directions and theory sections, the prelab is to be completed before coming to class. The prelab is worth 30% of the experiment. The prelab will be collected at the beginning of lab after which a quiz will be administered on most lab days. The quiz will be over the experiment for that day. The grade breakdown for each lab is as follows, 30% for prelab completed correctly, 20% for the quiz and 50% for the experimental work and calculations. The laboratory notes and calculations must be legible to receive credit, if I can't read it I won't grade it and calculations must be present to receive credit for a numerical answer. Lab work will follow as closely as possible the material discussed in the lectures. The total lab grade is broken down later in the syllabus. Please refer to the lab schedule to determine which lab will be done during each lab period. **No make up labs or make up lab quizzes will be allowed after the week they were assigned as the chemicals and equipment will no longer be available.**

Important dates:

Last day to drop without a W via Webadvisor Feb 3

Last day to drop with a W: March 8

Easter Break: no class Monday through Friday, April 15 – 19

Final exam Tuesday May 21 from 2:00 PM – 4:00 PM

See the schedule of courses for additional dates and times

Online Lecture Content: since this is a hybrid class there is no in-class lecture. All the lecture content is delivered online. This will consist of narrated Powerpoint lectures, video demonstrations of problem solving and experiments. These will all be available via Canvas. Access to a reliable internet connection is necessary for this class. There are free wifi locations available nearly everywhere, such as the RC campus, Starbucks and McDonalds.

Homework: Homework will be assigned for every chapter. It is essential to your success in this chemistry course that you do all the assigned homework and read the relevant chapters in your textbook. The homework is electronic and can be accessed through Mastering Chemistry that was included with the textbook. If you purchased a used textbook you can purchase an access code to MasteringChemistry from www.masteringchemistry.com. There will be no make-up homework assignments, but I will make the first assignment extra credit but the total HW percentage will not exceed 100%.

Attendance: Attendance in lab is mandatory. If you are going to be absent you must email me to let know of your upcoming absence. Students may be dropped if she/he misses a cumulative total of 2 weeks of class without contacting the instructor. This can

be two unexcused absences to lab. Do not be late to lab, the door will be locked shortly after the start of class for safety purposes. Attendance is particularly vital during the first 3 weeks of the semester in order to determine course census. If a student is absent twice in the first 3 weeks they will be dropped. Students wishing to be added the course will only be added if space is available without exceeding the course cap.

Grading and Exams: There will be **4 exams** over the course of the semester. These will be administered during the lab meeting on Tuesdays. The 4 exams will be equally weighted and the lowest score will be dropped and the second lowest will be doubled, this of course does not pertain to the final exam. **There are no makeup exams.** If for whatever the reason you cannot take the exam the day the rest of the class takes the exam, that exam will be the one that is dropped. The only possible exception to this rule is a valid medical emergency with documentation to verify the medical emergency complete with contact information for the medical personnel who wrote the note. If an exam is missed and a make up is allowed the make up exam will be different than what the class completed and the exam will be more difficult. There will also be a **comprehensive final exam** at the end of the semester covering all the course content of the semester.

The final grade is calculated as follows:

Laboratory (30%) of total grade	Lab quizzes x 2, 10%
	Lab practical, acid/base titration 5%
	Lab reports and experimentation 15%
Lecture Material (70%) of total grade	Exams 40%
	Final 20%
	Homework Assignments 10 %

The grading scale to be used is **A** 90-100%, **B** 80-89%, **C** 70-79%, **D** 60-69%, **F** 0-59%

Here is an example in grade calculation. Suppose a student earned a 65, 70, 78, 58 on the four exams and a 69 on the final. They received a 78 for the lab and an 85 for the homework. All the scores are in percent. The 58 would be dropped and the 65 would be doubled and the average calculated for those 4 scores (65, 65, 70, 78) is 69.5. The calculation for the final grade percentage is:

$$\frac{69.5\%}{100} \times 40 + \frac{69\%}{100} \times 20 + \frac{78\%}{100} \times 30 + \frac{85\%}{100} \times 10 = 73.5\%$$

Please be aware of the following rules:

- Although key points of the syllabus and schedule are discussed on the first day of the semester it is the student's responsibility to be aware of the content of the syllabus.
- Tardiness or leaving early during lab sessions is considered disruptive behavior and will result in an absence being recorded. If a cumulative total of 2 weeks (2 class meetings) of absences is recorded the student may be dropped.
- Shortly after the beginning of lab and the door will be closed and locked, do not be late to lab it is disruptive and a safety hazard in lab.
- Cheating during exams is graded with a zero and will be reported to the Dean and other appropriate administration officials. Cell phones are prohibited during exams, if a cell phone is observed during the exam the student will be awarded a zero for the exam and this will not be the exam that is dropped.
- Copying of homework, experimental data, and lab reports is considered fraudulent behavior for both the copier and the originator.
- Turn in lab reports before the end of the lab period.
- Late lab reports will not be accepted.
- Lab materials left at home or in the car etc. will not be accepted after the lab period.
- Homework is through Masteringchemistry.com, No alternative homework will be given.
- **No extra credit will be given except on the exams.**
- Dangerous behavior in the lab will result in the student being asked to leave the lab. Come prepared to lab, this includes lab coats and safety eyewear.
- Please silence your cell phones during lab so as not to disturb the class. No cell phones or ipods will be allowed during exams.
- A cumulative total of 2 weeks of absences could result in being dropped from the course
- **In the lab:**
 - **Attendance to the lab is mandatory, coming late will result in the student not being allowed to perform the experiment, coming late is a violation of standard safety protocol.**
 - Cleanliness in the lab is very important in preventing accidental contamination. At the end of each lab thoroughly clean work area by disposing of loose paper and wiping countertops. Points will be deducted from experiment if work area is left messy.
 - Safety glasses and lab coat are required to be worn whenever somebody near you is conducting an experiment.
 - No experiments may be conducted without the instructor or teaching assistant present
 - No horseplay or unauthorized experiments. Do not taste any chemical or smell any chemical directly.
 - No visitors inside the lab. You need to go outside to meet with them.
 - No food or drinks allowed.
 - Backpacks should not be left on the floor where others can trip over them.

- Closed toed shoes must be worn in the lab at all times, no sandals.
- Long hair should be tied back so it will not fall into chemicals or flames.
- If any accident occurs in the lab, inform your instructor immediately and follow safety procedures. (To be discussed during first lab period)
- Clean up any spills promptly (Clean-up procedures will be discussed during first lab period)
- Do not point the open end of a test tube towards anybody
- Turn off flames when working with organic solvents. Dispose of them in waste bottles in the fume hood, not down the sink.
- At the beginning of each lab your instructor will inform you of any special safety precautions and how to dispose of used chemicals. You need to be on time for the lab so that you hear these instructions.
- Do not dispose of matches, paper or solid chemicals in the sink. Use the large evaporating dishes for spent matches.
- Put broken glassware in the “broken glassware container”, not with the trash.
- Before leaving the lab, wipe the desktop and wash your hands with soap and water.

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.